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# Courses

A key issue of my lectures is mathematical modeling and applications in insurance (and finance). Here come the titles of a sample of courses I gave in this area at the University of Munich during the last few years.

### • Statistical Methods in Insurance

basics of data analysis, point estimation and hypotheses testing, credibility, linear models, time series analysis, chain ladder, data mining, bootstrapping, ...

### • Credit Risk

basics of credit risk management, modeling correlated defaults, sector models, CreditRisk<sup>+</sup>, dynamic intensity models, risk measures and capital allocation, cdedit derivatrives, Basel II and Solvency II,...

## • Linear Models in Insurance

basics of linear models, introduction to General Linear Models (GLMs), GLMs in insurance, estimation of Stornowahrscheinlichkeiten, change point analysis and GLMs,...

### • Statistical Tools in Insurance

basic statistical tools in insurance, estimation and testing methods, ML- estimation, credibility, PP- and QQ - plots, VaR, expected shortfall,  $\dots$ 

### • Extreme Value Theory and Applications in Insurance

maximum domain of attraction, heavy tailed distribution, tail and quantile estimation, generalized extreme value distribution,...

### • Risk Theory

the ruin problem, Cramer-Lundberg theory, ruin theory for heavy tailed distributions, large claim index, ...

### • Mathematical Statistics

basic course on statistics

• Mathematical Finance basic course on finance

### The courses are also listed on my web page

http://www.mathematik.uni-muenchen.de/personen/rost.php

l also supervised seminars e.g. on Subsampling, Copulas, Equilibrium Theory, Bootstrapping or Risk Theory.